



**U.S. Environmental Protection Agency – November 2004**

## **Compliance and Enforcement National Priority: Clean Water Act, Wet Weather, Concentrated Animal Feeding Operations**

The United States Environmental Protection Agency (EPA) Office of Enforcement and Compliance Assurance (OECA) has established national priorities for federal fiscal years (FY) 2005 through 2007. OECA and the EPA's 10 Regions will make the following issues priorities for monitoring, compliance assistance, enforcement and cleanup actions over the next three years:

1. Clean Air Act: Air Toxics
2. Clean Air Act: Prevention of Significant Deterioration and New Source Review
3. Tribal
4. Clean Water Act: Wet Weather, including:
  - Concentrated Animal Feeding Operations
  - Combined Sewer Overflows
  - Sanitary Sewer Overflows
  - Storm Water
5. Resource Conservation and Recovery Act: Mineral Processing and Mining

After evaluating the Safe Drinking Water Act (SDWA) Microbial Rules as a national priority, the Agency determined that it was more appropriate to address the microbial non-compliance problems, which occur predominately at very small drinking water systems, through the SDWA core program. The Petroleum Refining national priority is near completion and will be assessed during the coming year to determine if sufficient progress has been made to return this priority to the core program.

Four environmental challenges that are exacerbated by wet weather were chosen as Clean Water Act (CWA) national enforcement and compliance priorities for FY 2005 through FY 2007. They are concentrated animal feeding operations, combined sewer overflows, sanitary sewer overflows and storm water runoff. Like the other national priorities, they were selected because they met the selection criteria: (1) increased national attention could lead to significant environmental benefits; (2) there were patterns of non-compliance; and (3) EPA was well-suited to take action in this strategy area.

The Concentrated Animal Feeding Operations strategy summary that follows provides clear goals to achieve maximum compliance with environmental regulations in order to protect human health and the environment.

### **Background**

Concentrated Animal Feeding Operations (CAFOs) have been regulated under the National Pollutant Discharge Elimination System (NPDES) program since 1976. In February 2003, EPA promulgated new CAFO regulations to update the NPDES program to avoid and manage

environmental harm from these operations' animal manure and waste. The 2003 regulation requires all CAFOs to be covered by NPDES permits and in compliance with the requirements of those permits no later than April 2006, unless they have received a determination that they have "no potential to discharge." Each permit must have clear and enforceable requirements for such things as proper manure storage, land application, containment, record-keeping, dead animal disposal and reporting.

The animal feedlot industry has undergone major changes. These changes include consolidation trends in the industry toward larger-sized operations that have less available land on which to spread manure. Large CAFOs produce large quantities of nutrients that exceed the capacity of available crop land to utilize them.

Compliance with the 2003 CAFO rule has the potential for significant pollution reduction. The new rule is expected to bring about \$166 million to \$298 million in recreational and other benefits annually due to improved water quality in freshwater rivers, streams, and lakes. Reduced fish kills, improved shellfish harvests, reduced nitrate contamination of private wells, reduced livestock mortality from nitrate and pathogen contamination of drinking water and reduced public water treatment costs are also anticipated. The total annualized benefits are projected to be \$204 million to \$355 million.

Building on the regulation, the strategy outlined below supports strong and viable state NPDES programs for CAFOs in the 45 states and territories authorized to implement the program. These activities will be coupled with federal support and oversight as well as implementation of federal NPDES CAFO programs in the remaining unauthorized states, tribes and territories.

## **The Environmental Problems**

The major environmental problem associated with CAFOs is the large volume of animal waste generated in concentrated areas. For example, roughly 700 dairy cows can generate more waste than a city of 10,000 people. Pollutants associated with animal waste primarily include nutrients, mainly nitrogen and phosphorus, but animal waste may also include organic matter, solids, pathogens, pesticides, antibiotics, hormones, salts and various trace elements (including metals). If manure and wastewater are not properly managed, pollutants can be released into the environment through discharges from manure storage areas or land application.

EPA's *National Water Quality Inventory: 2000 Report* indicates that the agricultural sector—including confined animal feeding operations—is a major contributor of pollutants in the nation's rivers and streams. EPA's data show that water quality concerns tend to be greatest in regions where crops are intensively cultivated and livestock operations are concentrated. Other problems associated with animal manure include surface water (e.g., lakes, streams, rivers, and reservoirs) and ground water quality degradation, and adverse effects on estuarine water quality and resources in coastal areas. Water quality degradation can contribute to increased risk to aquatic and wildlife ecosystems, including fish kills.

Nationwide, there are roughly 18,000 concentrated animal feeding operations. Approximately 6,200 or 34 percent of these operations have NPDES permits. Therefore, a major focus of this

strategy is to ensure that all facilities that meet the definition of CAFO obtain permit coverage to comply with the new 2003 CAFO regulation.

## **Goals**

**Goal 1:** To protect public health and the environment by minimizing the discharge to surface water of pollutants from CAFOs. This goal will be reached by focusing on the priority sectors or on facilities located in priority watersheds.

Priority sectors include those with:

- high concentrations of one animal type in the same geographic area
- similar types of animal confinement
- poor compliance history

Priority watersheds include:

- waters where CAFOs have the potential to impact water quality or public health, such as CAFOs discharging to waters with drinking water intakes;
- waters in environmental justice areas;
- waters that are identified through CWA 303(d) lists (indicating impaired and threatened waters) and CWA 305(b) reports (completed CWA quality assessments) as being impacted by CAFOs; and,
- waters with shellfish harvest restrictions, beach advisories, fish or wildlife advisories or fish kills where CAFO discharges may have caused or contributed to the problem.

**Goal 2:** EPA will assist states in enhancing the capacity of their CAFO programs by developing regional CAFO compliance/enforcement implementation plans and conducting training, compliance assistance and outreach activities. In coordination with the states, EPA will identify, correct, and deter non-compliance with both the 1976 and 2003 CAFO regulations and reduce environmental risks through compliance monitoring, inspections and enforcement activities. The goal will be achieved through the following activities:

- ensure that all CAFOs comply with the CAFO rule by applying for NPDES CAFO permits; and,
- use multiple tools to ensure compliance with the permits, including compliance assistance, compliance incentives, compliance monitoring and enforcement.

## **Strategy**

- Use a variety of tools, including compliance assistance and outreach, capacity-building for state compliance and enforcement programs, compliance incentives, compliance monitoring and targeting and enforcement. For the new CAFO rule, focus on compliance assistance in FY2005 and part of FY2006 and transition to graduated enforcement response as the three year time frame of the strategy evolves;
- Consistent with EPA's NPDES permitting objectives, require all CAFOs to apply for NPDES

permits by April 2006 and develop and implement nutrient management plans by December 31, 2006;

- For FY2005 and 2006, continue to focus on targeting, compliance monitoring, and enforcement activities on large CAFOs, which have been regulated since 1976, that are in non-compliance and causing environmental or human health problems;
- □Continue to focus on full implementation of the CAFO rule; and,
- □Maintain a field presence through inspections and appropriate follow-up actions to serve as a deterrent to non-compliance.

### **Performance Measures**

CAFOs will likely remain a national compliance and enforcement priority beyond FY 2007. The status of CAFO compliance and enforcement activities should change from a national priority to an element of the core NPDES program when the following benchmarks are met:

- □At least 95 percent of the total universe of CAFOs has permit coverage, in accordance with a Statistically Valid Non-Compliance (SVNC) Rate study.
- □80 percent of permitted CAFOs are in compliance with their permit, in accordance with a SVNC study.
- □95 percent of CAFOs have been inspected at least once in the past five years, with appropriate compliance assistance and/or enforcement actions taken to address non-compliance.